

IN THE CLAIMS

Please amend the claims as follows:

1. (Original) A method of embedding a digital watermark in an information signal; the method comprising

- providing (415) a watermark secret (106, 430);
- embedding (107,410) a digital watermark (421) in an information signal (101,414) where said embedding is controlled by the watermark secret;
- calculating (102,404) a digital fingerprint (103) from the information signal;
- storing (104) the calculated digital fingerprint as a reference digital fingerprint and storing, in relation to the reference digital fingerprint, a identifier data item (SID) from which the watermark secret can be derived.

2. (Original) A method according to claim 1, wherein the information signal is an audio signal, the digital fingerprint is an audio fingerprints, and the digital watermark is an audio watermark.

3. (Currently Amended) A method according to claim 1 ~~or 2~~, wherein storing the calculated digital fingerprint and said identifier data item comprises storing the calculated digital fingerprint and the identifier data item in a fingerprint database (105,407).

4. (Currently Amended) A method according to ~~any one of claims 1 through 3~~ claim 1, wherein the watermark secret is related to the

calculated fingerprint by a function which is computationally infeasible to invert.

5. (Currently Amended) A method according to ~~any one of claims 1 through 4~~ claim 1, wherein the watermark secret is determined by a random process.

6. (Currently Amended) A method according to ~~any one of claims 1 through 5~~ claim 1, where the digital watermark comprises a watermark payload (419) and wherein the watermark payload is indicative of the information signal.

7. (Original) A method according to claim 6, further comprising encoding (420) said watermark payload based on an encryption key ( $K_p$ ) derived from an identifier (416) indicative of an information content of the information signal.

8. (Currently Amended) A method according to ~~any one of claims 1 through 7~~ claim 1, wherein the information signal is a video signal.

9. (Original) A method of detecting a digital watermark in an information signal (500); the method comprising

- providing (407) a plurality of digital reference fingerprints each calculated from a respective reference information signal, where each digital fingerprint is associated with a corresponding watermark secret;
- calculating (404) a digital fingerprint from an information signal;

- determining (502) a matching digital fingerprint from the plurality of digital reference fingerprints as corresponding to the calculated digital fingerprint;
- detecting (505) whether a digital watermark according to the watermark secret associated with the matching digital fingerprint is present in the information signal.

10. (Original) A method according to claim 9, wherein determining a matching digital fingerprint comprises sending a query to a fingerprint database, the query comprising the calculated digital fingerprint; and receiving from the fingerprint database a response including a identifier data item from which the watermark secret associated with the matching digital fingerprint can be derived.

11. (Original) A method according to claim 10, wherein sending a query and receiving a response comprise communicating via a communications network.

12. (Currently Amended) A method according to ~~any one of claims 9 through 11~~claim 9, wherein the information signal comprises an encoded information signal; and calculating the digital fingerprint comprises decoding the encoded information signal, and calculating the fingerprint from the decoded information signal.

13. (Currently Amended) A method according to ~~any one of claims 10 through 12~~claim 10, wherein determining a matching digital fingerprint comprises performing a search in a fingerprint database based on reliability information about the calculated digital fingerprint.

14. (Original) An arrangement for embedding a digital watermark in an information signal; the arrangement comprising

- means (107, 428) for embedding a digital watermark in an information signal where said embedding is controlled by a watermark secret;
- means (102, 404) for calculating a digital fingerprint from the information signal; and
- means (105, 407) for storing the calculated digital fingerprint as a reference digital fingerprint and for storing, in relation to the reference digital fingerprint, a identifier data item from which the watermark secret can be derived.

15. (Original) An arrangement for detecting a digital watermark in an information signal; the arrangement comprising

- means (105, 407) for providing a plurality of digital reference fingerprints each calculated from a respective reference information signal, where each digital fingerprint is associated with a corresponding watermark secret;
- means (102, 404) for calculating a digital fingerprint from an information signal;
- means (204, 502) for determining a matching digital fingerprint from the plurality of digital reference fingerprints as corresponding to the calculated digital fingerprint; and
- means (202, 505) for detecting whether a digital watermark according to the watermark secret associated with the matching digital fingerprint is present in the information signal.

16. (Original) A database system comprising

- a storage medium (105, 407) having stored thereon a plurality of digital reference fingerprints each calculated from a respective reference information signal, and having stored thereon, in relation to each of the digital reference fingerprints, a respective identifier data item from which a corresponding watermark secret associated to said digital fingerprint can be derived;
- means (301) for receiving a request from a watermark processing system for a watermark secret suitable as an input for embedding a digital watermark in an information signal, the request comprising a digital fingerprint calculated from the information signal by the watermark processing system;
- means (303) for determining a matching digital fingerprint from the plurality of digital reference fingerprints as corresponding to the calculated digital fingerprint; and
- means (304) for sending a response to the watermark processing system, the response comprising the identifier data item stored in relation to the determined matching digital fingerprint.